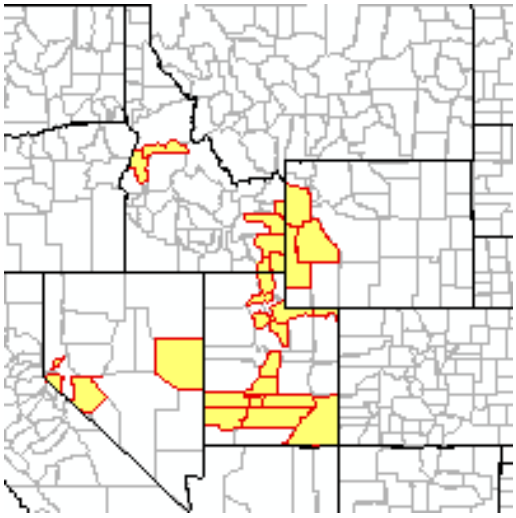
Forest Pest Event Report - Intermountain Region

Damage Agent:	**Armillaria Root Disease** (*Armillaria spp.*)
Survey Year:	2013
Host(s):	Douglas-Fir, Engelmann Spruce, Grand Fir, Great Basin Bristlecone Pine, Jeffrey Pine, Limber Pine, Lodgepole Pine, Ponderosa Pine, Subalpine Fir, Sugar Pine, Western White Pine, Whitebark Pine
Survey Method(s):	General Observation
Setting(s):	Rural Forest
Finding of No Signifcant Impact:	False
Acres Affected:	10,001 - 100,000
Location / Affected Area:	Throughout the Intermountain Region.

Evidence of Armillaria root disease can be found throughout the Intermountain Region. However, the fungus functions primarily as a weak pathogen or saprophyte in most locations causing minor amounts of tree mortality. In Utah, it may act as a primary pathogen killing mature and immature lodgepole pine and mature fir and spruce on cool, moist, high-elevation sites.

Counties or Equivalents	Causing Damage (Yes/No)
ID - Adams County	Yes
ID - Bear Lake County	Yes
ID - Bonneville County	Yes
ID - Caribou County	Yes
ID - Franklin County	Yes
ID - Idaho County	Yes
ID - Teton County	Yes
NV - Douglas County	Yes
NV - Mineral County	Yes
NV - Storey County	Yes
NV - White Pine County	Yes
UT - Beaver County	Yes
UT - Cache County	Yes
UT - Daggett County	Yes
UT - Garfield County	Yes
UT - Iron County	Yes
UT - Piute County	Yes
UT - Salt Lake County	Yes
UT - San Juan County	Yes
UT - Sanpete County	Yes
UT - Sevier County	Yes
UT - Summit County	Yes
UT - Wasatch County	Yes
UT - Wayne County	Yes
UT - Weber County	Yes
WY - Lincoln County	Yes
WY - Sublette County	Yes
WY - Teton County	Yes

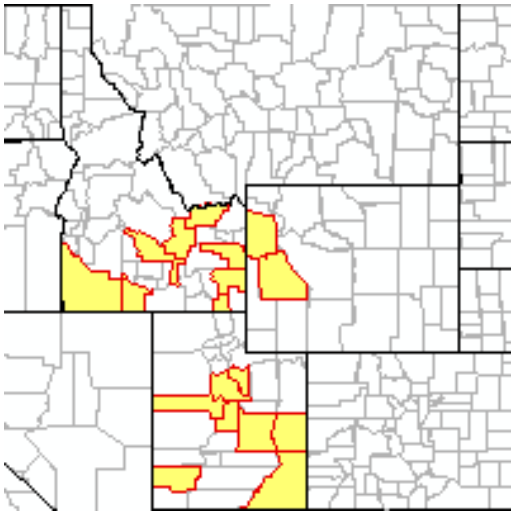


Forest Pest Event Report - Intermountain Region

Damage Agent:	Aspen Defoliation
Survey Year:	2013
Host(s):	Quaking Aspen
Survey Method(s):	Aerial Survey - DMSM
Setting(s):	Rural Forest
Finding of No Signifcant Impact:	False
Acres Affected:	Unknown
Location / Affected Area:	

Aspen defoliation mapped in the Intermountain Region by aerial detection survey decreased. Defoliation is primarily caused by three agents: large aspen tortrix (Choristoneura conflictana), aspen leaf tier (Sciaphila duplex), and aspen twoleaf tier (Enargia decolor). Marsonnina leaf blight was not detected by aerial survey in 2013, but this disease is observed in aspen stands every year.

Counties or Equivalents	Causing Damage (Yes/No)
ID - Blaine County	Yes
ID - Bonneville County	Yes
ID - Butte County	Yes
ID - Caribou County	Yes
ID - Clark County	Yes
ID - Franklin County	Yes
ID - Owyhee County	Yes
ID - Twin Falls County	Yes
UT - Emery County	Yes
UT - Grand County	Yes
UT - Iron County	Yes
UT - Juab County	Yes
UT - San Juan County	Yes
UT - Sanpete County	Yes
UT - Utah County	Yes
UT - Wasatch County	Yes
WY - Sublette County	Yes
WY - Teton County	Yes



Forest Pest Event Report - Intermountain Region

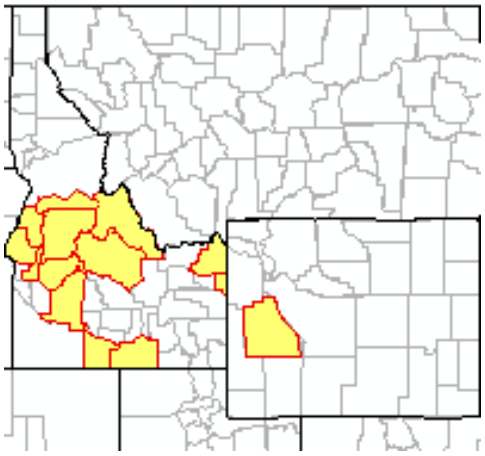
Damage Agent:	**Balsam Woolly Adelgid** (*Adelges piceae*)
Survey Year:	2013
Host(s):	Grand Fir, Subalpine Fir
Survey Method(s):	Aerial Survey - DMSM, Ground Survey
Setting(s):	Rural Forest, Urban
Finding of No Signifcant Impact:	False
Acres Affected:	> 1,000,000
Location / Affected Area:	This insect has been identified on all forested lands north of Interstate 84. Delimitation surveys south of I-84 will continue.

In the Intermountain Region, the presence of this non-native forest insect was not verified in southern Idaho until 2001 when it was found causing subalpine fir mortality in residential areas in Cascade and McCall. Delimitation surveys conducted from 2006 through 2010 by Idaho Department of Lands (IDL) and Forest Health Protection (FHP) personnel determined the distribution of balsam woolly adelgid (BWA) was south of the Salmon River affecting most of southern Idaho's forests. Mortality, especially in riparian areas, has increased from the initial survey in 2006. Further surveys are planned by IDL and FHP staff to document changing impacts in the Intermountain Region.

Forest Health Protection staff established 60 long-term impact plots in 2008 in southern Idaho National Forests. Half of these plots were remeasured in 2013 to detect change in crown condition. The remainder is scheduled for remeasurement in 2014. A western risk model for BWA is currently being developed using data from the long-term plots with funds obtained from the Special Technology Development Program by Rob Progar, USFS Research Entomologist.

Since 2010 in the Intermountain Region, the balsam woolly adelgid (BWA) signature observed from the air has been used to report affected trees. BWA has been aerially identified on all forested ownerships in southern Idaho but ground verification has not been completed for all sites. Signature identification and survey results will improve with experience and ground verification of mapped signatures. In the future, aerial survey will be used as a monitoring tool to identify areas affected by BWA.

Counties or Equivalents	Causing Damage (Yes/No)
ID - Adams County	Yes
ID - Boise County	Yes
ID - Cassia County	Yes
ID - Custer County	Yes
ID - Elmore County	Yes
ID - Fremont County	Yes
ID - Gem County	Yes
ID - Idaho County	Yes
ID - Lemhi County	Yes
ID - Teton County	Yes
ID - Twin Falls County	Yes
ID - Valley County	Yes
ID - Washington County	Yes
WY - Sublette County	Yes



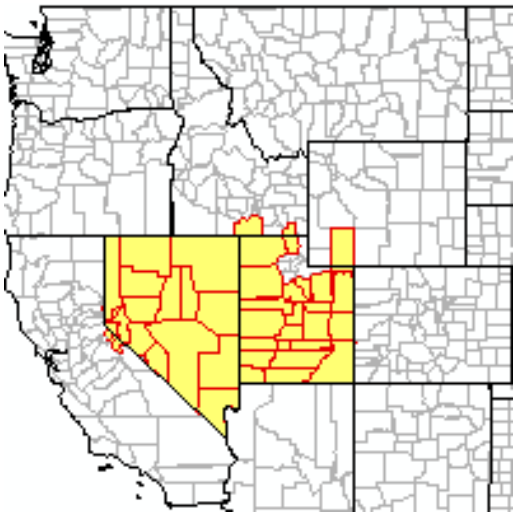
Forest Pest Event Report - Intermountain Region

Damage Agent:	**Black Stain Root Disease** (*Leptographium wageneri*)
Survey Year:	2013
Host(s):	Common Or Two-Needle Pinyon, Singleleaf Pinyon
Survey Method(s):	Ground Survey
Setting(s):	Rural Forest
Finding of No Signifcant Impact:	False
Acres Affected:	101 - 1,000
Location / Affected Area:	Pinyon pine type in the Intermountain Region.

In the Intermountain Region aerial and ground surveys have identified approximately two-dozen black stain root disease centers in piñon pine stands of significant size. This disease is most prevalent in Utah and Nevada where piñon pine is abundant. However, the disease-infected piñon pines occur on fewer than 1,500 acres in each state. The northern range of piñon pine extends into southern Idaho primarily on Bureau of Land Management lands where approximately 50 acres are infected with black stain root disease.

Counties or Equivalents	Causing Damage (Yes/No)

CA - Alpine County	No
CA - Mono County	No
CA - Sierra County	No
CO - Mesa County	No
CO - Montrose County	No
ID - Cassia County	No
ID - Franklin County	No
NV - Carson City	No
NV - Churchill County	No
NV - Clark County	No
NV - Douglas County	No
NV - Elko County	No
NV - Esmeralda County	No
NV - Eureka County	No
NV - Humboldt County	No
NV - Lander County	No
NV - Lincoln County	No
NV - Lyon County	No
NV - Mineral County	No
NV - Nye County	No
NV - Pershing County	No
NV - Storey County	No
NV - Washoe County	No
NV - White Pine County	No
UT - Beaver County	No
UT - Box Elder County	No
UT - Cache County	No
UT - Carbon County	No
UT - Daggett County	No
UT - Duchesne County	No
UT - Emery County	No
UT - Garfield County	No
UT - Grand County	No
UT - Iron County	No
UT - Juab County	No
UT - Kane County	No
UT - Millard County	No
UT - Piute County	No
UT - San Juan County	No
UT - Sanpete County	No
UT - Sevier County	No
UT - Tooele County	No
UT - Uintah County	No
UT - Utah County	No
UT - Wasatch County	No
UT - Washington County	No
UT - Wayne County	No
WY - Sweetwater County	No

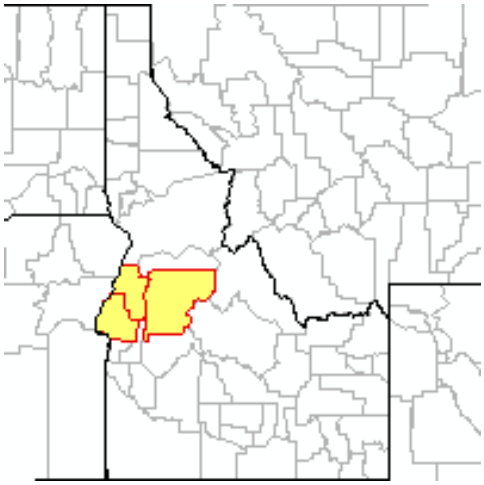


Forest Pest Event Report - Intermountain Region

Damage Agent:	**Cottonwood Leaf Beetle** (*Chrysomela scripta*)
Survey Year:	2013
Host(s):	Willow Spp.
Survey Method(s):	General Observation
Setting(s):	Rural Forest
Finding of No Signifcant Impact:	False
Acres Affected:	10,001 - 100,000
Location / Affected Area:	Payette National Forest, Idaho

In the Intermountain Region, widespread defoliation and skeletonized leaves was reported on mountain willows in southern Idaho. The heaviest defoliation occurred on the Payette National Forest. While not recorded by aerial survey, ground surveys indicated that it was widespread and intense in some drainages.

Counties or Equivalents	Causing Damage (Yes/No)
ID - Adams County	Yes
ID - Valley County	Yes
ID - Washington County	Yes



Forest Pest Event Report - Intermountain Region

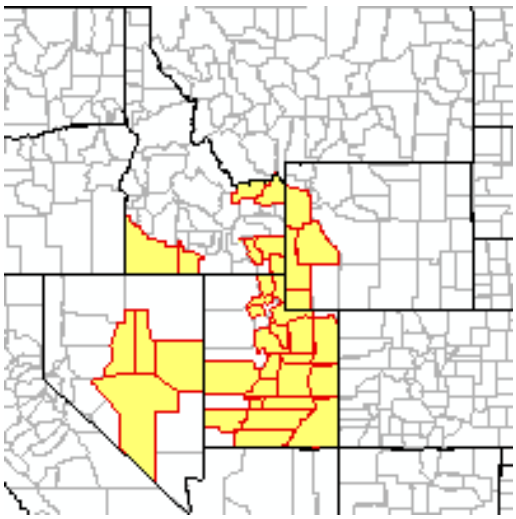
Damage Agent:	Decline
Survey Year:	2013
Host(s):	Gambel Oak, Quaking Aspen
Survey Method(s):	Aerial Survey - DMSM
Setting(s):	Rural Forest
Finding of No Signifcant Impact:	False
Acres Affected:	Unknown
Location / Affected Area:	Throughout the Intermountain Region in host type.

Aspen dieback/decline mapped by aerial detection survey increased 14% in 2013 from 2012 figures, yet remained at low levels compared to the peak in aspen dieback/decline recorded from 2006 through 2008. Aspen dieback/decline has been attributed to a complex of agents including drought, grazing, poplar borer (Saperda calcarata), bronze poplar borer (Agrilus liragus), Cytospora canker (Valsa sordida) and sooty bark canker (Encoelia pruinosa). The borers and Cytospora canker disease agents are commonly considered secondary pests. Sooty bark canker is usually considered a disease of older stands.

In recent years, aspen bark beetles (Trypophloeus populi and Procryphalus mucronatus) have been associated with damage. Aspen bark beetles are now common in many Utah stands with dieback and decline symptoms. Field observations indicate that Trypophloeus attack trees that still have a large component of “green bark”, while Procryphalus is found in trees in which the bark is almost entirely dead. Aspen mortality caused by bark beetles, borers, and canker diseases increased as a result of significant drought periods during the last decade. Collectively, this suite of damaging agents is associated with stressed, older aspen with high rates of mortality and regeneration damage from grazing pressure. In most of the Intermountain Region aspen stands have at least some suckering and do not have the symptoms of sudden aspen decline reported in other Regions.

Counties or Equivalents	Causing Damage (Yes/No)

ID - Bannock County	Yes
ID - Bear Lake County	Yes
ID - Caribou County	Yes
ID - Clark County	Yes
ID - Fremont County	Yes
ID - Owyhee County	Yes
ID - Twin Falls County	Yes
NV - Eureka County	Yes
NV - Lander County	Yes
NV - Nye County	Yes
NV - White Pine County	Yes
UT - Cache County	Yes
UT - Carbon County	Yes
UT - Davis County	Yes
UT - Duchesne County	Yes
UT - Emery County	Yes
UT - Garfield County	Yes
UT - Grand County	Yes
UT - Iron County	Yes
UT - Kane County	Yes
UT - Millard County	Yes
UT - Piute County	Yes
UT - Rich County	Yes
UT - San Juan County	Yes
UT - Sanpete County	Yes
UT - Sevier County	Yes
UT - Summit County	Yes
UT - Uintah County	Yes
UT - Utah County	Yes
UT - Wasatch County	Yes
UT - Wayne County	Yes
UT - Weber County	Yes
WY - Lincoln County	Yes
WY - Sublette County	Yes
WY - Teton County	Yes
WY - Uinta County	Yes



Forest Pest Event Report - Intermountain Region

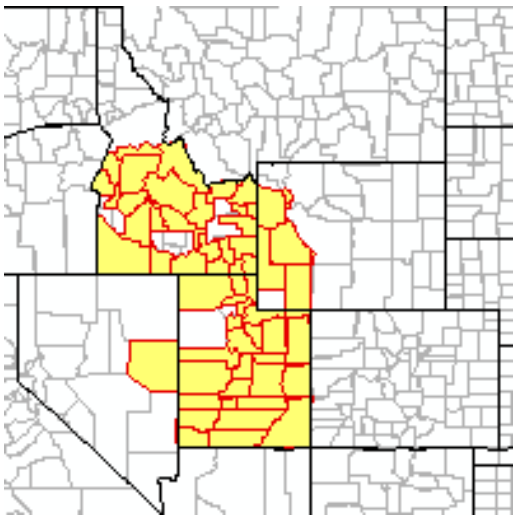
Damage Agent:	**Douglas-fir Beetle** (*Dendroctonus pseudotsugae*)
Survey Year:	2013
Host(s):	Bigcone Douglas-Fir
Survey Method(s):	Aerial Survey - DMSM
Setting(s):	Nursery, Rural Forest, Seed Orchard, Urban
Finding of No Signifcant Impact:	False
Acres Affected:	Unknown
Location / Affected Area:	In host type throughout the Intermountain Region.

In the Intermountain Region, Douglas-fir beetle (DFB)-caused tree mortality decreased from widespread outbreak levels to localized outbreaks in 2013, but this decrease may be overestimated. Increased Douglas-fir mortality occurred in Utah, Nevada and western Wyoming. All of the decrease occurred in southern Idaho. There are several possible reasons for the decrease: 1) In 2012, ground observations noted that current attacked Douglas-fir faded quickly then dropped their needles due to the hot, dry year and the mortality was indistinguishable during the 2013 surveys, 2) multiple years of budworm defoliation resulted in minimal foliage to provide the aerial mortality signature, 3) several large wildfires occurred in 2012, mortality noted in those areas in 2013 were attributed to 2012 fire effects, 4) insect damage was reduced state-wide allowing observers to draw discreet polygons, and 5) smoke from the 2013 large wildfires obscured the faint signature. While all are contributing factors, general consensus is that mortality is underrepresented for 2013.

Douglas-fir beetle-caused mortality is expected to be similar in 2014 due to continued western spruce budworm defoliation-caused tree stress, and drought. Douglas-fir is an important component of transitional, mixed forests in the Intermountain Region. Continued loss of mature Douglas-fir due to the combined effects of western spruce budworm and Douglas-fir beetle could reduce biodiversity and thus adversely impact many important resource values including wildlife, hydrology and timber. The loss of seed trees and advanced regeneration might also prohibit the successful restoration of stands suffering the greatest damage. This presents a concern for the long-term sustainability of Douglas-fir, particularly in stands where regeneration is scarce or where the large tree component is important. The accumulation of fuels resulting from Douglas-fir mortality and the general deterioration of mixed forests due to insects and diseases will likely increase the likelihood of intense and severe wildfire.

Counties or Equivalents	Causing Damage (Yes/No)

CO - Montrose County	Yes
ID - Adams County	Yes
ID - Bannock County	Yes
ID - Bear Lake County	Yes
ID - Blaine County	Yes
ID - Boise County	Yes
ID - Bonneville County	Yes
ID - Butte County	Yes
ID - Camas County	Yes
ID - Caribou County	Yes
ID - Cassia County	Yes
ID - Clark County	Yes
ID - Custer County	Yes
ID - Elmore County	Yes
ID - Franklin County	Yes
ID - Fremont County	Yes
ID - Gem County	Yes
ID - Idaho County	Yes
ID - Lemhi County	Yes
ID - Madison County	Yes
ID - Oneida County	Yes
ID - Owyhee County	Yes
ID - Power County	Yes
ID - Teton County	Yes
ID - Twin Falls County	Yes
ID - Valley County	Yes
ID - Washington County	Yes
NV - White Pine County	Yes
UT - Beaver County	Yes
UT - Box Elder County	Yes
UT - Cache County	Yes
UT - Carbon County	Yes
UT - Daggett County	Yes
UT - Duchesne County	Yes
UT - Emery County	Yes
UT - Garfield County	Yes
UT - Grand County	Yes
UT - Iron County	Yes
UT - Juab County	Yes
UT - Kane County	Yes
UT - Millard County	Yes
UT - Morgan County	Yes
UT - Piute County	Yes
UT - Rich County	Yes
UT - Salt Lake County	Yes
UT - San Juan County	Yes
UT - Sanpete County	Yes
UT - Sevier County	Yes
UT - Summit County	Yes
UT - Uintah County	Yes
UT - Utah County	Yes
UT - Wasatch County	Yes
UT - Washington County	Yes
UT - Wayne County	Yes
UT - Weber County	Yes
WY - Fremont County	Yes
WY - Lincoln County	Yes
WY - Park County	Yes
WY - Sublette County	Yes
WY - Sweetwater County	Yes
WY - Teton County	Yes



Forest Pest Event Report - Intermountain Region

Damage Agent:	**Douglas-fir Tussock Moth** (*Orgyia pseudotsugata*)
Survey Year:	2013
Host(s):	
Survey Method(s):	
Setting(s):	Not Applicable
Finding of No Signifcant Impact:	True
Acres Affected:	0 - 10
Location / Affected Area:	No damage mapped in Intermountain Region.

No Douglas-fir tussock moth (DFTM) damage was mapped in the Intermountain Region. However, the Jarbidge District of the Humboldt-Toiyabe National Forest, where DFTM was mapped in 2012 was not surveyed in 2013. Southern Idaho detection traps caught few male moths suggesting DFTM defoliation will remain low in this area in 2014.

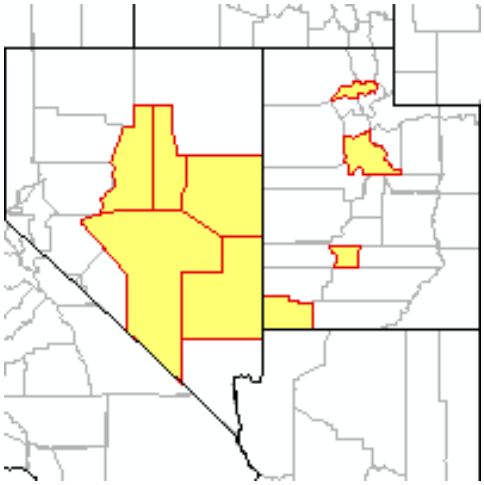
Counties or Equivalents	Causing Damage (Yes/No)

Forest Pest Event Report - Intermountain Region

Damage Agent:	Drought
Survey Year:	2013
Host(s):	Curlleaf Mountain-Mahogany, Gambel Oak
Survey Method(s):	Aerial Survey - DMSM
Setting(s):	Rural Forest
Finding of No Signifcant Impact:	False
Acres Affected:	Unknown
Location / Affected Area:	Utah and Nevada.

Throughout the Intermountain Region drought-related impacts can influence insect and disease activity. Drought-related damage was mapped in mountain mahogany in Nevada and in Gambel Oak in Utah.

Counties or Equivalents	Causing Damage (Yes/No)
NV - Eureka County	Yes
NV - Lander County	Yes
NV - Lincoln County	Yes
NV - Nye County	Yes
NV - White Pine County	Yes
UT - Piute County	Yes
UT - Utah County	Yes
UT - Washington County	Yes
UT - Weber County	Yes

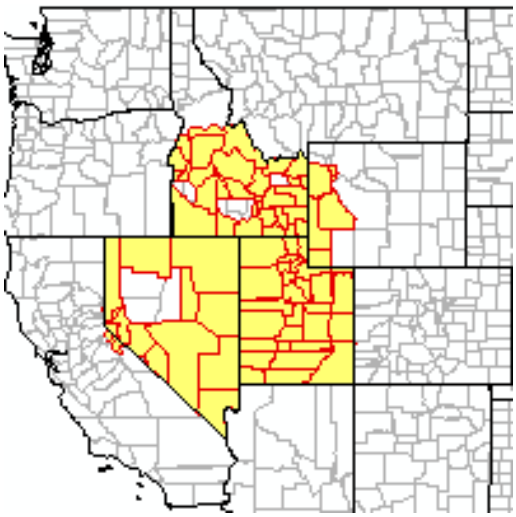


Forest Pest Event Report - Intermountain Region

Damage Agent:	**Dwarf Mistletoe** (*Arceuthobium spp.*)
Survey Year:	2013
Host(s):	California Red Fir, Douglas-Fir, Grand Fir, Great Basin Bristlecone Pine, Jeffrey Pine, Limber Pine, Lodgepole Pine, Ponderosa Pine, Subalpine Fir, Sugar Pine, Western Larch, Western White Pine, White Fir, Whitebark Pine
Survey Method(s):	Ground Survey
Setting(s):	Rural Forest, Urban
Finding of No Signifcant Impact:	False
Acres Affected:	> 1,000,000
Location / Affected Area:	Throughout the Intermountain Region

Dwarf mistletoes remain the most widespread and frequently observed disease within the Intermountain Region and in some stands growth is completely stunted. Dwarf mistletoe incidence is updated using data gathered by the Forest Inventory and Analysis (FIA) group. The 2008 FIA data indicated that one or more dwarf mistletoe species were present at various levels of intensity on 15% of all plots surveyed. Incidence of the more significant dwarf mistletoe species by percent of host type infected within the Intermountain Region is: lodgepole pine 26%, piñon pine 20%, Douglas-fir 14%, limber pine 12%, ponderosa/Jeffrey pine 7%, and whitebark pine 6%. No FIA plots are located in infected Great Basin bristlecone pine stands, but the disease is commonly observed infecting this host in several Intermountain Region locations.

Counties or Equivalents	Causing Damage (Yes/No)
CA - Alpine County	Yes
CA - El Dorado County	Yes
CA - Mono County	Yes
CA - Nevada County	Yes
CA - Placer County	Yes
CA - Sierra County	Yes
CA - Tuolumne County	Yes
CO - Mesa County	Yes
CO - Montrose County	Yes
ID - Adams County	Yes
ID - Bannock County	Yes
ID - Bear Lake County	Yes
ID - Bingham County	Yes
ID - Blaine County	Yes
ID - Boise County	Yes
ID - Bonneville County	Yes
ID - Butte County	Yes
ID - Camas County	Yes
ID - Caribou County	Yes
ID - Cassia County	Yes
ID - Clark County	Yes
ID - Custer County	Yes
ID - Elmore County	Yes
ID - Franklin County	Yes
ID - Fremont County	Yes
ID - Gem County	Yes
ID - Idaho County	Yes
ID - Lemhi County	Yes
ID - Madison County	Yes
ID - Oneida County	Yes
ID - Owyhee County	Yes
ID - Payette County	Yes
ID - Power County	Yes
ID - Teton County	Yes
ID - Twin Falls County	Yes
ID - Valley County	Yes



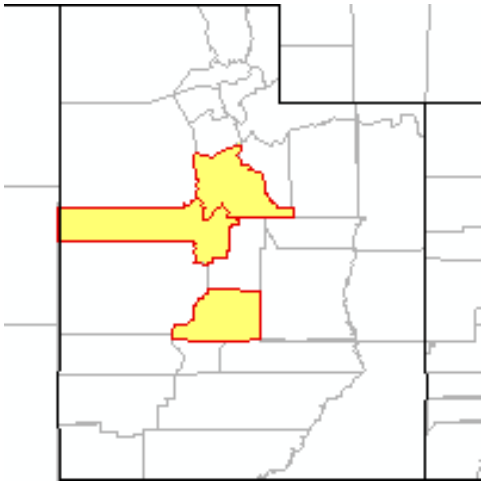
ID - Washington County	Yes
NV - Carson City	Yes
NV - Clark County	Yes
NV - Douglas County	Yes
NV - Elko County	Yes
NV - Esmeralda County	Yes
NV - Eureka County	Yes
NV - Humboldt County	Yes
NV - Lincoln County	Yes
NV - Lyon County	Yes
NV - Mineral County	Yes
NV - Nye County	Yes
NV - Storey County	Yes
NV - Washoe County	Yes
NV - White Pine County	Yes
UT - Beaver County	Yes
UT - Box Elder County	Yes
UT - Cache County	Yes
UT - Carbon County	Yes
UT - Daggett County	Yes
UT - Davis County	Yes
UT - Duchesne County	Yes
UT - Emery County	Yes
UT - Garfield County	Yes
UT - Grand County	Yes
UT - Iron County	Yes
UT - Juab County	Yes
UT - Kane County	Yes
UT - Millard County	Yes
UT - Morgan County	Yes
UT - Piute County	Yes
UT - Rich County	Yes
UT - Salt Lake County	Yes
UT - San Juan County	Yes
UT - Sanpete County	Yes
UT - Sevier County	Yes
UT - Summit County	Yes
UT - Tooele County	Yes
UT - Uintah County	Yes
UT - Utah County	Yes
UT - Wasatch County	Yes
UT - Washington County	Yes
UT - Wayne County	Yes
UT - Weber County	Yes
WY - Fremont County	Yes
WY - Lincoln County	Yes
WY - Park County	Yes
WY - Sublette County	Yes
WY - Teton County	Yes
WY - Uinta County	Yes

Forest Pest Event Report - Intermountain Region

Damage Agent:	**Fall Cankerworm** (*Alsophila pometaria*)
Survey Year:	2013
Host(s):	Gambel Oak
Survey Method(s):	Aerial Survey - DMSM
Setting(s):	Rural Forest
Finding of No Signifcant Impact:	False
Acres Affected:	Unknown
Location / Affected Area:	Central Utah

In the Intermountain Region, unknown oak defoliation was mapped in 2013. Although causal agent is not confirmed, the defoliation is probably caused by fall cankerworm.

Counties or Equivalents	Causing Damage (Yes/No)
UT - Juab County	Yes
UT - Sevier County	Yes
UT - Utah County	Yes

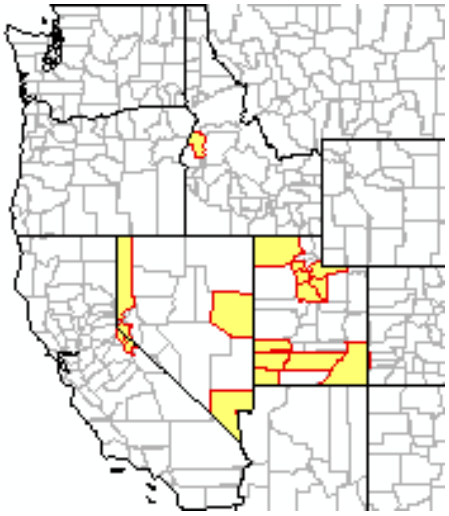


Forest Pest Event Report - Intermountain Region

Damage Agent:	**Fir Engraver** (*Scolytus ventralis*)
Survey Year:	2013
Host(s):	White Fir
Survey Method(s):	Aerial Survey - DMSM
Setting(s):	Rural Forest
Finding of No Signifcant Impact:	False
Acres Affected:	Unknown
Location / Affected Area:	Intermountain region.

In the Intermountain Region, fir engraver beetle-caused fir mortality remained low in 2013. Most of the damage occurred on National Forest lands in Nevada and Utah. Fir mortality remained static in Nevada occurring primarily on the Carson and Ely Districts of the Humboldt-Toiyabe National Forest. In Utah, tree mortality caused by the fir engraver beetle decreased 79 percent with tree mortality occurring on the Uinta-Wasatch-Cache and Dixie National Forests and private lands. In southern Idaho, fir engraver beetle-caused mortality was minimal in 2013.

Counties or Equivalents	Causing Damage (Yes/No)
CA - Alpine County	Yes
CA - Mono County	Yes
ID - Adams County	Yes
NV - Clark County	Yes
NV - Douglas County	Yes
NV - Washoe County	Yes
NV - White Pine County	Yes
UT - Beaver County	Yes
UT - Box Elder County	Yes
UT - Davis County	Yes
UT - Garfield County	Yes
UT - Iron County	Yes
UT - Salt Lake County	Yes
UT - San Juan County	Yes
UT - Summit County	Yes
UT - Utah County	Yes
UT - Wasatch County	Yes
UT - Washington County	Yes



Forest Pest Event Report - Intermountain Region

Damage Agent:	**Gypsy Moth** (*Lymantria dispar*)
Survey Year:	2013
Host(s):	
Survey Method(s):	
Setting(s):	Not Applicable
Finding of No Signifcant Impact:	True
Acres Affected:	0 - 10
Location / Affected Area:	None for 2013.

The first gypsy moth outbreak detected in the Intermountain Region occurred in Utah in 1988. Gypsy moth populations were subsequently eradicated. Single male moth catches have periodically occurred in various locations throughout the Region. Since 2009, no male moths have been captured in the Intermountain Region. In 2014, pheromone detection traps will be deployed in the Region at key locations.

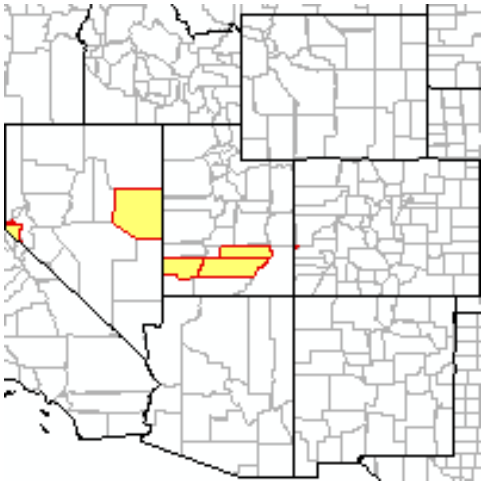
Counties or Equivalents	Causing Damage (Yes/No)

Forest Pest Event Report - Intermountain Region

Damage Agent:	**Heterobasidion Root Disease P-type** (*Heterobasidion irregulare*)
Survey Year:	2013
Host(s):	Common Or Two-Needle Pinyon, Singleleaf Pinyon
Survey Method(s):	General Observation
Setting(s):	Rural Forest
Finding of No Signifcant Impact:	False
Acres Affected:	101 - 1,000
Location / Affected Area:	In small pockets in the pinyon pine type.

In the Intermountain Region, heterobasidion regulare is a limited disease. It can be found killing small pockets of pinyon pine in a few counties in Colorado, Utah and Nevada.

Counties or Equivalents	Causing Damage (Yes/No)
CO - Mesa County	Yes
CO - Montrose County	Yes
NV - Carson City	Yes
NV - Douglas County	Yes
NV - White Pine County	Yes
UT - Garfield County	Yes
UT - Iron County	Yes
UT - Wayne County	Yes

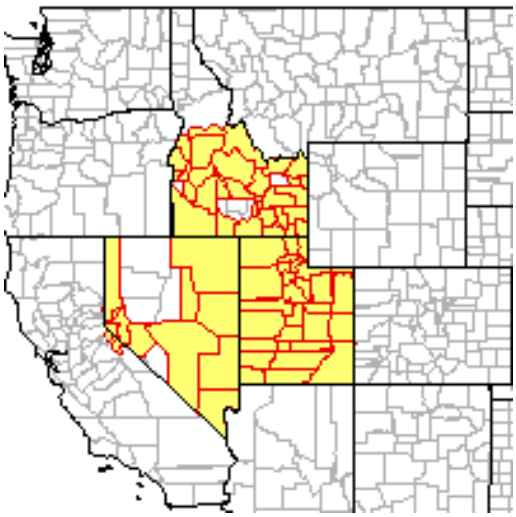


Forest Pest Event Report - Intermountain Region

Damage Agent:	**Heterobasidion Root Disease S-type** (*Heterobasidion occidentale*)
Survey Year:	2013
Host(s):	California Red Fir, Douglas-Fir, Engelmann Spruce, Fir Spp., Grand Fir, Subalpine Fir, White Fir
Survey Method(s):	General Observation
Setting(s):	Rural Forest
Finding of No Signifcant Impact:	False
Acres Affected:	10,001 - 100,000
Location / Affected Area:	In host typed throughout the Intermountain Region.

Heterobasidion occidentale can be found infecting true fir, spruce, and Douglas-fir throughout the Intermountain Region usually in stands with infected fir. As a disease causing agent the full ecological effects of this organism have never been evaluated over long temporal and spatial scales. However, by killing planted or naturally regenerated seedlings and saplings, and heavily infected fir stands, the disease can cause serious but un-quantified impacts. This organism is also a saprophyte and has a vital role in recycling dead trees, stumps, and roots.

Counties or Equivalents	Causing Damage (Yes/No)
CA - Alpine County	Yes
CA - El Dorado County	Yes
CA - Mono County	Yes
CA - Nevada County	Yes
CA - Placer County	Yes
CA - Sierra County	Yes
CA - Tuolumne County	Yes
CO - Montrose County	Yes
ID - Ada County	Yes
ID - Adams County	Yes
ID - Bannock County	Yes
ID - Bear Lake County	Yes
ID - Bingham County	Yes
ID - Blaine County	Yes
ID - Boise County	Yes
ID - Bonneville County	Yes
ID - Butte County	Yes
ID - Camas County	Yes
ID - Caribou County	Yes
ID - Cassia County	Yes
ID - Clark County	Yes
ID - Custer County	Yes
ID - Elmore County	Yes
ID - Franklin County	Yes
ID - Fremont County	Yes
ID - Gem County	Yes
ID - Idaho County	Yes
ID - Lemhi County	Yes
ID - Madison County	Yes
ID - Oneida County	Yes
ID - Owyhee County	Yes
ID - Payette County	Yes
ID - Power County	Yes
ID - Teton County	Yes
ID - Twin Falls County	Yes
ID - Valley County	Yes
ID - Washington County	Yes
NV - Carson City	Yes
NV - Clark County	Yes



NV - Douglas County	Yes
NV - Elko County	Yes
NV - Eureka County	Yes
NV - Lincoln County	Yes
NV - Lyon County	Yes
NV - Mineral County	Yes
NV - Nye County	Yes
NV - Storey County	Yes
NV - Washoe County	Yes
NV - White Pine County	Yes
UT - Beaver County	Yes
UT - Box Elder County	Yes
UT - Cache County	Yes
UT - Carbon County	Yes
UT - Daggett County	Yes
UT - Davis County	Yes
UT - Duchesne County	Yes
UT - Emery County	Yes
UT - Garfield County	Yes
UT - Grand County	Yes
UT - Iron County	Yes
UT - Juab County	Yes
UT - Kane County	Yes
UT - Millard County	Yes
UT - Morgan County	Yes
UT - Piute County	Yes
UT - Rich County	Yes
UT - Salt Lake County	Yes
UT - San Juan County	Yes
UT - Sanpete County	Yes
UT - Sevier County	Yes
UT - Summit County	Yes
UT - Tooele County	Yes
UT - Uintah County	Yes
UT - Utah County	Yes
UT - Wasatch County	Yes
UT - Washington County	Yes
UT - Wayne County	Yes
UT - Weber County	Yes

Forest Pest Event Report - Intermountain Region

Damage Agent:	**Jeffrey Pine Beetle** (*Dendroctonus jeffreyi*)
Survey Year:	2013
Host(s):	Jeffrey Pine
Survey Method(s):	Aerial Survey - DMSM
Setting(s):	Rural Forest
Finding of No Signifcant Impact:	False
Acres Affected:	Unknown
Location / Affected Area:	California/Nevada border area.

In the Intermountain Region, Jeffrey pine beetle-caused mortality remained low. Most of the Jeffrey pine mortality occurred on the Bridgeport and Carson Ranger Districts of the Humboldt-Toiyabe National Forest.

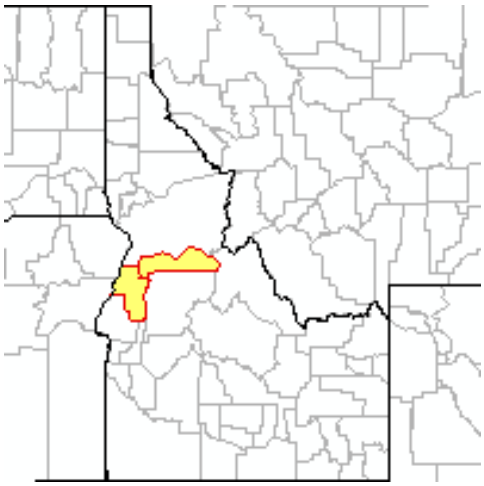
Counties or Equivalents	Causing Damage (Yes/No)
CA - Alpine County	Yes
CA - Mono County	Yes
CA - Sierra County	Yes
NV - Carson City	Yes
NV - Washoe County	Yes

Forest Pest Event Report - Intermountain Region

Damage Agent:	**Larch Needle Cast** (*Meria laricis*)
Survey Year:	2013
Host(s):	Western Larch
Survey Method(s):	Aerial Survey - DMSM
Setting(s):	Rural Forest
Finding of No Signifcant Impact:	False
Acres Affected:	Unknown
Location / Affected Area:	Southwestern Idaho.

On the Payette National Forest, Intermountain Region, less than 300 acres of western larch was affected by larch needle cast.

Counties or Equivalents	Causing Damage (Yes/No)
ID - Adams County	Yes
ID - Idaho County	Yes

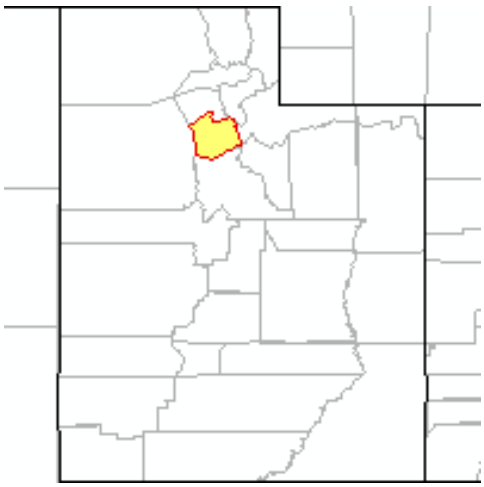


Forest Pest Event Report - Intermountain Region

Damage Agent:	Loopers
Survey Year:	2013
Host(s):	White Fir
Survey Method(s):	Aerial Survey - DMSM
Setting(s):	Rural Forest
Finding of No Signifcant Impact:	False
Acres Affected:	Unknown
Location / Affected Area:	Salt Lake County, Utah

In Utah, the small area of western false hemlock looper (Nepytia freemani) reported in 2012 has doubled in size. This species is more common in other parts of the region attacking Douglas-fir. The defoliation was concentrated in the younger/intermediate age-class white fir.

Counties or Equivalents	Causing Damage (Yes/No)
UT - Salt Lake County	Yes



Forest Pest Event Report - Intermountain Region

Damage Agent:	**Mountain Pine Beetle** (*Dendroctonus ponderosae*)
Survey Year:	2013
Host(s):	Limber Pine, Lodgepole Pine, Ponderosa Pine, Sugar Pine, Western White Pine, Whitebark Pine
Survey Method(s):	Aerial Survey - DMSM
Setting(s):	Rural Forest
Finding of No Signifcant Impact:	False
Acres Affected:	Unknown
Location / Affected Area:	Throughout the pine type in the Intermountain Region.

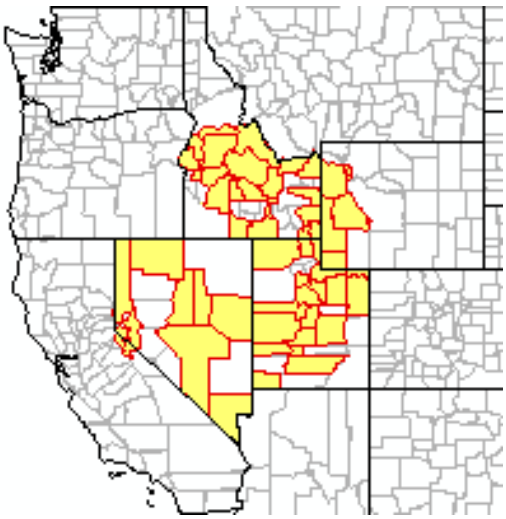
The largest recorded mountain pine beetle (MPB) outbreak in the Intermountain Region is rapidly declining. In 2013, less than a million pine trees were killed. This is the first time in more than a decade that less than a million trees of new mortality were reported in a single year. Most of the preferred, susceptible host type has been killed in areas where the outbreak has been occurring for many years.

Historically, most of the pine mortality occurred in southern Idaho and western Wyoming. In southern Idaho, the only increase in pine mortality occurred on the Sawtooth National Forest but remain at endemic levels. A 93 percent decrease occurred on the Salmon-Challis National Forest. In western Wyoming, pine mortality declined by 66 percent on the Bridger-Teton National Forest. Levels are approaching endemic levels on most forests in southern Idaho and western Wyoming.

Mountain pine beetle-caused pine mortality increased in Utah and Nevada after two years of declining MPB-caused tree mortality. In Utah, lodgepole pine mortality nearly doubled on the Uinta-Wasatch-Cache and remained high on the Ashley National Forests. Of note is a three-fold increase in limber pine mortality on the Manti-LaSal National Forest. In Nevada, pine mortality nearly tripled on the Humboldt-Toiyabe National Forest but remains at low levels. Drought coupled with warmer temperatures and landscapes composed of susceptible hosts are the significant contributors to tree mortality.

Counties or Equivalents	Causing Damage (Yes/No)

CA - Alpine County	Yes
CA - Mono County	Yes
CA - Sierra County	Yes
ID - Adams County	Yes
ID - Bear Lake County	Yes
ID - Blaine County	Yes
ID - Boise County	Yes
ID - Bonneville County	Yes
ID - Butte County	Yes
ID - Camas County	Yes
ID - Caribou County	Yes
ID - Cassia County	Yes
ID - Clark County	Yes
ID - Custer County	Yes
ID - Elmore County	Yes
ID - Franklin County	Yes
ID - Fremont County	Yes
ID - Gem County	Yes
ID - Idaho County	Yes
ID - Lemhi County	Yes
ID - Twin Falls County	Yes
ID - Valley County	Yes
ID - Washington County	Yes
NV - Clark County	Yes
NV - Douglas County	Yes
NV - Eureka County	Yes
NV - Humboldt County	Yes
NV - Lander County	Yes
NV - Lyon County	Yes
NV - Nye County	Yes
NV - Washoe County	Yes
NV - White Pine County	Yes
UT - Beaver County	Yes
UT - Box Elder County	Yes
UT - Cache County	Yes
UT - Daggett County	Yes
UT - Duchesne County	Yes
UT - Emery County	Yes
UT - Garfield County	Yes
UT - Juab County	Yes
UT - Millard County	Yes
UT - Piute County	Yes
UT - Rich County	Yes
UT - Salt Lake County	Yes
UT - Sanpete County	Yes
UT - Sevier County	Yes
UT - Summit County	Yes
UT - Uintah County	Yes
UT - Utah County	Yes
UT - Wasatch County	Yes
UT - Washington County	Yes
WY - Fremont County	Yes
WY - Lincoln County	Yes
WY - Park County	Yes
WY - Sublette County	Yes
WY - Teton County	Yes
WY - Uinta County	Yes

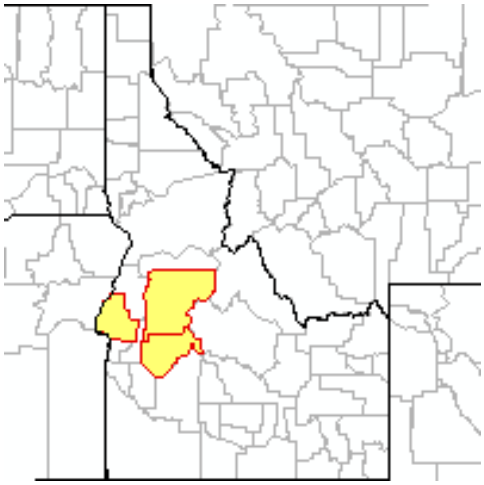


Forest Pest Event Report - Intermountain Region

Damage Agent:	**Pine Engraver** (*Ips pini*)
Survey Year:	2013
Host(s):	Ponderosa Pine
Survey Method(s):	Aerial Survey - DMSM
Setting(s):	Rural Forest, Urban
Finding of No Signifcant Impact:	False
Acres Affected:	Unknown
Location / Affected Area:	South-central Idaho and Nevada.

In the Intermountain Region pine engraver caused tree mortality remained near endemic levels. Most of the mortality was reported in south-central Idaho on private lands and the Boise National Forest. Some mortality was reported on the Humboldt-Toiyabe National Forest in Nevada.

Counties or Equivalents	Causing Damage (Yes/No)
ID - Boise County	Yes
ID - Valley County	Yes
ID - Washington County	Yes



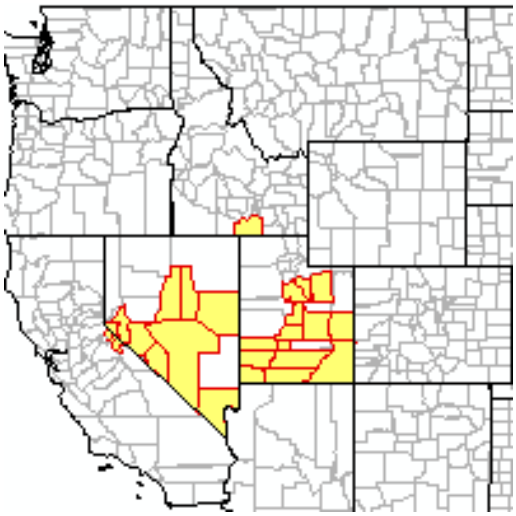
Forest Pest Event Report - Intermountain Region

Damage Agent:	**Pinyon Ips** (*Ips confusus*)
Survey Year:	2013
Host(s):	Common Or Two-Needle Pinyon, Singleleaf Pinyon
Survey Method(s):	Aerial Survey - DMSM
Setting(s):	Rural Forest
Finding of No Signifcant Impact:	False
Acres Affected:	Unknown
Location / Affected Area:	Pinyon pine type in the Intermountain Region

Historically in the Intermountain Region, piñon-juniper woodlands were not annually surveyed. However, an extended drought in the late 1990's caused an increase in pinyon ips populations that resulted in a significant increase in piñon pine mortality over a three year period. Annual aerial surveys were conducted until populations of this insect collapsed. Most of the piñon/juniper woodlands have not been aerially surveyed since 2004.

In 2013, pinyon ips-caused pine mortality decreased in Nevada. Most of the mapped mortality occurred on Nevada Bureau of Land Management lands and the Humboldt-Toiyabe National Forest. Pine mortality was also mapped in Utah on nearly all ownerships.

Counties or Equivalents	Causing Damage (Yes/No)
CA - Alpine County	Yes
CA - Mono County	Yes
CO - Montrose County	Yes
ID - Cassia County	Yes
NV - Clark County	Yes
NV - Douglas County	Yes
NV - Esmeralda County	Yes
NV - Eureka County	Yes
NV - Lander County	Yes
NV - Lyon County	Yes
NV - Mineral County	Yes
NV - Nye County	Yes
NV - White Pine County	Yes
UT - Beaver County	Yes
UT - Duchesne County	Yes
UT - Emery County	Yes
UT - Garfield County	Yes
UT - Grand County	Yes
UT - Iron County	Yes
UT - Kane County	Yes
UT - Piute County	Yes
UT - San Juan County	Yes
UT - Sanpete County	Yes
UT - Sevier County	Yes
UT - Utah County	Yes
UT - Wasatch County	Yes
UT - Washington County	Yes



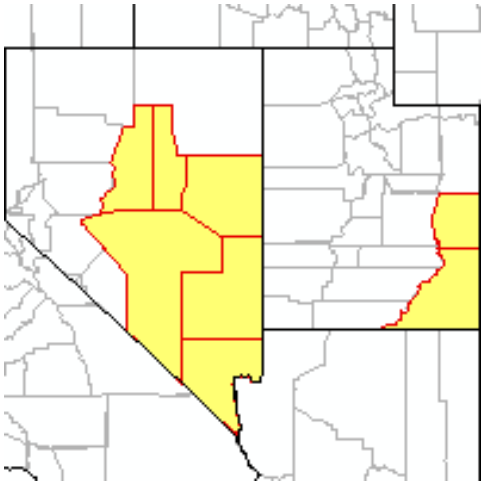
Forest Pest Event Report - Intermountain Region

Damage Agent:	**Pinyon Needle Scale** (*Matsucoccus acalyptus*)
Survey Year:	2013
Host(s):	Common Or Two-Needle Pinyon, Singleleaf Pinyon
Survey Method(s):	Aerial Survey - DMSM
Setting(s):	Rural Forest
Finding of No Signifcant Impact:	False
Acres Affected:	Unknown
Location / Affected Area:	Nevada and the LaSal Mountains in Utah.

In the Intermountain Region, aerially mapped pinyon needle scale activity affecting piñon pine is decreasing to endemic levels. The defoliation occurred on all land ownerships throughout Nevada. A small amount of damage was reported in the LaSal Mountains in southeastern Utah. The recent outbreak of pinyon scale was first reported in 2008 in eastern Nevada. In 2009 extensive heavy defoliation was recorded during aerial detection surveys in many Nevada locations.

Outbreaks of pinyon needle scale have occurred before in the southwestern United States. Recurring infestations increase piñon pine susceptibility to pinyon Ips-caused tree mortality. Scale infestations can kill small trees and seriously weaken larger trees as the affected needles drop from the tree. Thin crowns cause a ghostly “see-through” appearance of the forest. In many locations this scale outbreak is occurring in conjunction with pinyon sawfly, Neodiprion edulicolus defoliation. In some areas of Nevada, piñon pine repeatedly attacked by scale is also attacked by twig beetles causing twig or branch kill and in some instances tree mortality. Twig beetle predators have increased and are suppressing populations of the twig beetle in some of the affected sites.

Counties or Equivalents	Causing Damage (Yes/No)
NV - Clark County	Yes
NV - Eureka County	Yes
NV - Lander County	Yes
NV - Lincoln County	Yes
NV - Nye County	Yes
NV - White Pine County	Yes
UT - Grand County	Yes
UT - San Juan County	Yes

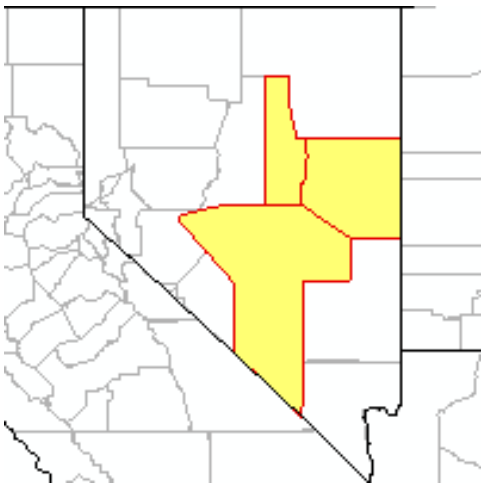


Forest Pest Event Report - Intermountain Region

Damage Agent:	**Pinyon Sawfly** (*Neodiprion edulicolus*)
Survey Year:	2013
Host(s):	Common Or Two-Needle Pinyon, Singleleaf Pinyon
Survey Method(s):	Aerial Survey - DMSM
Setting(s):	Rural Forest
Finding of No Signifcant Impact:	False
Acres Affected:	Unknown
Location / Affected Area:	Southeastern Nevada

In the Intermountain Region pinyon sawfly-caused defoliation of piñon pine is decreasing to endemic levels in Nevada. Most of the defoliation occurred on the Humboldt-Toiyabe National Forest and Bureau of Land Management lands. The last reported large-scale outbreak of this defoliator occurred in 1965. Since 1965, there have been periodic, small sawfly outbreaks affecting less than 100 acres. Although this is the fifth year it was mapped during aerial surveys, subsequent ground visits indicate the defoliation has been occurring for 8-9 years resulting in some tree mortality in affected sites. This increase in activity may be due to drought, an abundance of host type, mild winters, low parasite/predator populations or a combination of these factors. In many locations sawfly defoliation is occurring in conjunction with piñon needle scale infestations. Successive years of heavy defoliation may kill both small and large trees.

Counties or Equivalents	Causing Damage (Yes/No)
NV - Eureka County	Yes
NV - Nye County	Yes
NV - White Pine County	Yes

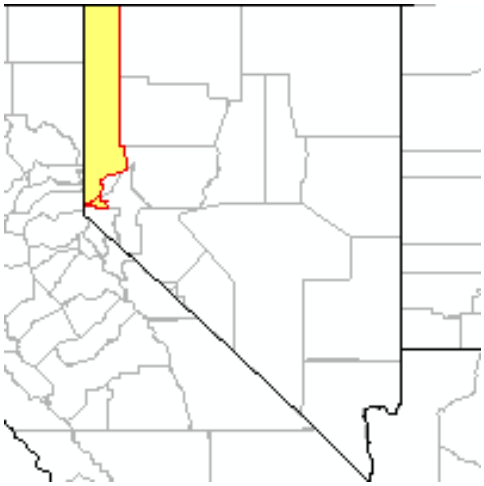


Forest Pest Event Report - Intermountain Region

Damage Agent:	**Satin Moth** (*Leucoma salicis*)
Survey Year:	2013
Host(s):	Cottonwood And Poplar Spp., Willow Spp.
Survey Method(s):	Aerial Survey - DMSM
Setting(s):	Rural Forest
Finding of No Signifcant Impact:	False
Acres Affected:	Unknown
Location / Affected Area:	California/Nevada border.

In Nevada, Satin Moth-caused aspen defoliation decreased along the California border north and east of Lake Tahoe. This introduced, exotic species is a voracious feeder on all poplar species as well as willows. A small spot was first reported in the Lake Tahoe Basin in the 1990's. This current infestation has been ground verified. It is anticipated that parasitism by flies and wasps will cause the population to collapse.

Counties or Equivalents	Causing Damage (Yes/No)
NV - Carson City	Yes
NV - Washoe County	Yes

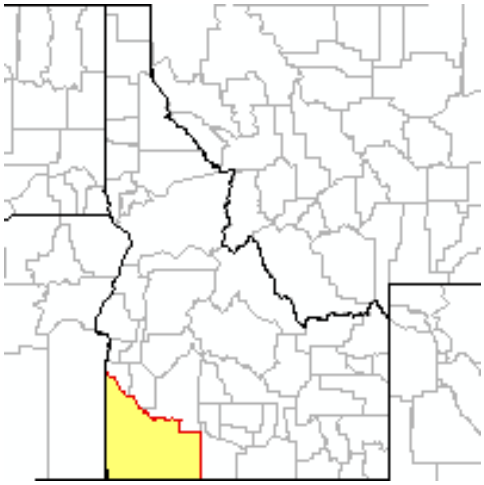


Forest Pest Event Report - Intermountain Region

Damage Agent:	Scale Insects
Survey Year:	2013
Host(s):	Rocky Mountain Juniper
Survey Method(s):	Aerial Survey - DMSM
Setting(s):	Rural Forest
Finding of No Signifcant Impact:	False
Acres Affected:	Unknown
Location / Affected Area:	Owyhee County, Idaho

In Nevada, the mortality and branch flagging in juniper and lodgepole pine attributed to scale insects, Coccodidea spp., was not mapped in 2013. However, some scale in juniper was mapped in southern Idaho.

Counties or Equivalents	Causing Damage (Yes/No)
ID - Owyhee County	Yes

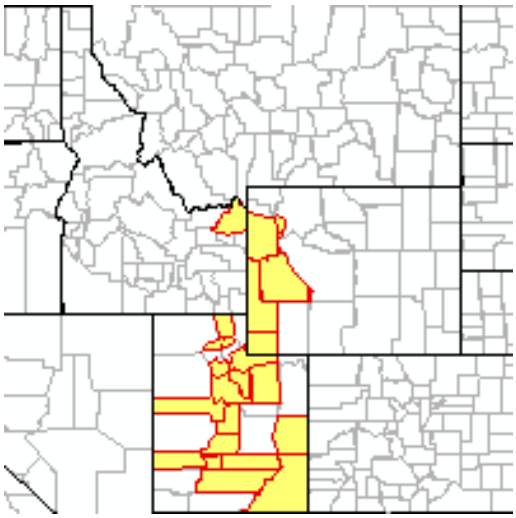


Forest Pest Event Report - Intermountain Region

Damage Agent:	**Spruce Beetle** (*Dendroctonus rufipennis*)
Survey Year:	2013
Host(s):	Blue Spruce, Engelmann Spruce
Survey Method(s):	Aerial Survey - DMSM
Setting(s):	Rural Forest, Urban
Finding of No Signifcant Impact:	False
Acres Affected:	Unknown
Location / Affected Area:	Utah and western Wyoming.

Spruce beetle-caused tree mortality increased nearly seven fold for 2013 in the Intermountain Region. Most of the spruce mortality was mapped in Utah where it was detected at some level on all National Forests. The Uinta-Wasatch-Cache, Fishlake and Ashley National Forests have significant outbreaks. There was also a nine-fold increase in spruce mortality on private lands in Utah. The increase is a result of continued drought and high beetle populations in dense spruce stands. In western Wyoming, spruce mortality was scattered throughout the Bridger-Teton National Forest. No spruce beetle-caused mortality was reported in southern Idaho or Nevada.

Counties or Equivalents	Causing Damage (Yes/No)
ID - Fremont County	Yes
UT - Beaver County	Yes
UT - Cache County	Yes
UT - Duchesne County	Yes
UT - Garfield County	Yes
UT - Grand County	Yes
UT - Juab County	Yes
UT - Piute County	Yes
UT - Salt Lake County	Yes
UT - San Juan County	Yes
UT - Sanpete County	Yes
UT - Sevier County	Yes
UT - Summit County	Yes
UT - Utah County	Yes
UT - Wasatch County	Yes
UT - Wayne County	Yes
UT - Weber County	Yes
WY - Fremont County	Yes
WY - Lincoln County	Yes
WY - Park County	Yes
WY - Sublette County	Yes
WY - Teton County	Yes
WY - Uinta County	Yes



Forest Pest Event Report - Intermountain Region

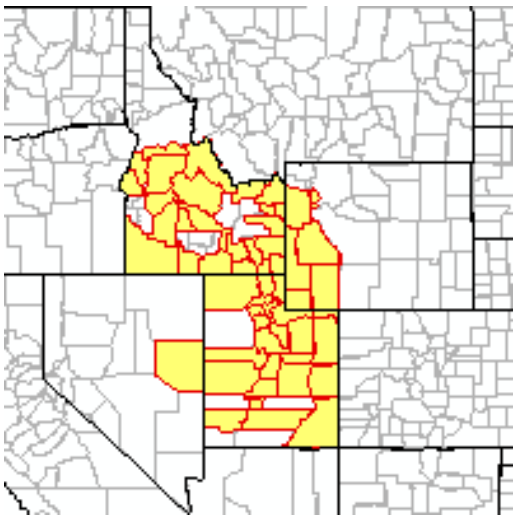
Damage Agent:	Subalpine Fir Mortality Complex
Survey Year:	2013
Host(s):	Subalpine Fir
Survey Method(s):	Aerial Survey - DMSM
Setting(s):	Rural Forest
Finding of No Signifcant Impact:	False
Acres Affected:	Unknown
Location / Affected Area:	Predominantly Idaho, Utah and western Wyoming.

In the Intermountain Region subalpine fir mortality caused by a complex of factors was first described in the late 1980's. Tree mortality caused by this complex peaked in the mid 1990's during a prolonged drought when over one million trees were affected. There are several fungal pathogens associated with this complex with annosum root disease the most common; however, Cytospora canker, Valsa abietis, is common in south-central Idaho. The primary insects attributed to subalpine fir mortality are: western balsam bark beetle, Dryocoetes confusus, and balsam woolly adelgid, Adelges piceae.

In 2013, subalpine fir mortality increased slightly but remains near endemic levels in many areas. The largest increase in subalpine fir mortality was mapped in western Wyoming on the Bridger-Teton National Forest. Mortality also increased on the Uinta-Wasatch-Cache National Forest in Utah as a result of drought and high density stands. Mortality in southern Idaho decreased but remained high on the Caribou-Targhee National Forest. In Nevada, subalpine fir mortality remains at endemic levels.

Counties or Equivalents	Causing Damage (Yes/No)

ID - Adams County	Yes
ID - Bannock County	Yes
ID - Bear Lake County	Yes
ID - Blaine County	Yes
ID - Boise County	Yes
ID - Bonneville County	Yes
ID - Camas County	Yes
ID - Caribou County	Yes
ID - Cassia County	Yes
ID - Clark County	Yes
ID - Custer County	Yes
ID - Elmore County	Yes
ID - Franklin County	Yes
ID - Fremont County	Yes
ID - Idaho County	Yes
ID - Lemhi County	Yes
ID - Madison County	Yes
ID - Oneida County	Yes
ID - Owyhee County	Yes
ID - Power County	Yes
ID - Teton County	Yes
ID - Twin Falls County	Yes
ID - Valley County	Yes
ID - Washington County	Yes
NV - White Pine County	Yes
UT - Box Elder County	Yes
UT - Cache County	Yes
UT - Carbon County	Yes
UT - Daggett County	Yes
UT - Davis County	Yes
UT - Duchesne County	Yes
UT - Emery County	Yes
UT - Garfield County	Yes
UT - Grand County	Yes
UT - Iron County	Yes
UT - Juab County	Yes
UT - Millard County	Yes
UT - Morgan County	Yes
UT - Piute County	Yes
UT - Rich County	Yes
UT - Salt Lake County	Yes
UT - San Juan County	Yes
UT - Sanpete County	Yes
UT - Sevier County	Yes
UT - Summit County	Yes
UT - Uintah County	Yes
UT - Utah County	Yes
UT - Wasatch County	Yes
UT - Weber County	Yes
WY - Fremont County	Yes
WY - Lincoln County	Yes
WY - Park County	Yes
WY - Sublette County	Yes
WY - Sweetwater County	Yes
WY - Teton County	Yes
WY - Uinta County	Yes

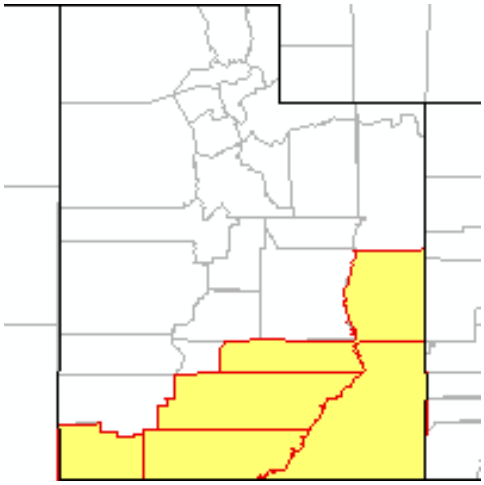


Forest Pest Event Report - Intermountain Region

Damage Agent:	**Tent Caterpillars** (*Malacosoma spp.*)
Survey Year:	2013
Host(s):	Cottonwood And Poplar Spp.
Survey Method(s):	General Observation
Setting(s):	Rural Forest
Finding of No Signifcant Impact:	False
Acres Affected:	101 - 1,000
Location / Affected Area:	Central to Southern Utah.

In 2013, tent caterpillar-caused damage was not detected by aerial survey in the Intermountain Region. However, tent caterpillars continue to cause heavy cottonwood defoliation throughout its range in southern Utah especially in Capital Reef and Zion National Parks. Both Forest (M. disstria) and Western (M.californicum) tent caterpillars were observed.

Counties or Equivalents	Causing Damage (Yes/No)
UT - Garfield County	Yes
UT - Grand County	Yes
UT - Kane County	Yes
UT - San Juan County	Yes
UT - Washington County	Yes
UT - Wayne County	Yes



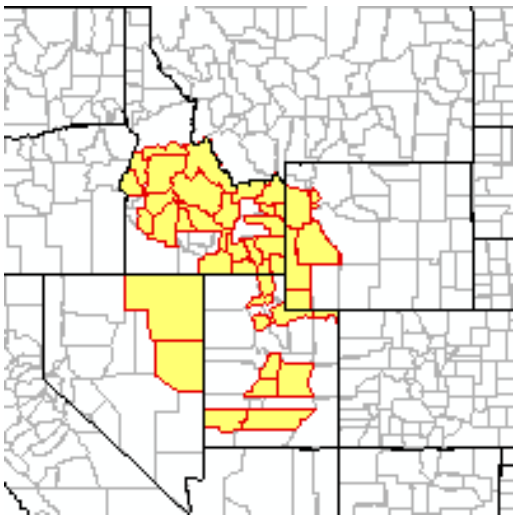
Forest Pest Event Report - Intermountain Region

Damage Agent:	**Tomentosus Root Rot/False Velvet Top Fungus** (*Onnia tomentosa*)
Survey Year:	2013
Host(s):	Blue Spruce, Engelmann Spruce, Lodgepole Pine
Survey Method(s):	General Observation
Setting(s):	Nursery, Rural Forest, Seed Orchard, Urban
Finding of No Signifcant Impact:	False
Acres Affected:	1,001 - 10,000
Location / Affected Area:	In pockets throughout the Intermountain Region

Onnia tomentosa is another common but un-quantified root disease in the Intermountain Region. Tomentosus infections of tree roots may result in mortality, premature windfall, growth reduction, and butt cull. Tomentosus root disease is found in pockets throughout most of the Intermountain Region primarily as a pathogen of spruce, (Picea engelmanni and P. pungens), but lodgepole pine is also a host. In some stands in southern Utah losses of over 20% have been documented. The disease is quite common and damaging in northern Utah, particularly on the Logan Ranger District of the Uinta-Wasatch-Cache National Forest.

Counties or Equivalents	Causing Damage (Yes/No)

ID - Ada County	Yes
ID - Adams County	Yes
ID - Bannock County	Yes
ID - Bear Lake County	Yes
ID - Blaine County	Yes
ID - Boise County	Yes
ID - Bonneville County	Yes
ID - Butte County	Yes
ID - Camas County	Yes
ID - Caribou County	Yes
ID - Cassia County	Yes
ID - Clark County	Yes
ID - Custer County	Yes
ID - Elmore County	Yes
ID - Franklin County	Yes
ID - Fremont County	Yes
ID - Idaho County	Yes
ID - Lemhi County	Yes
ID - Madison County	Yes
ID - Oneida County	Yes
ID - Power County	Yes
ID - Teton County	Yes
ID - Valley County	Yes
ID - Washington County	Yes
NV - Elko County	Yes
NV - White Pine County	Yes
UT - Cache County	Yes
UT - Daggett County	Yes
UT - Emery County	Yes
UT - Garfield County	Yes
UT - Iron County	Yes
UT - Salt Lake County	Yes
UT - Sanpete County	Yes
UT - Sevier County	Yes
UT - Summit County	Yes
UT - Weber County	Yes
WY - Fremont County	Yes
WY - Lincoln County	Yes
WY - Park County	Yes
WY - Sublette County	Yes
WY - Teton County	Yes
WY - Uinta County	Yes

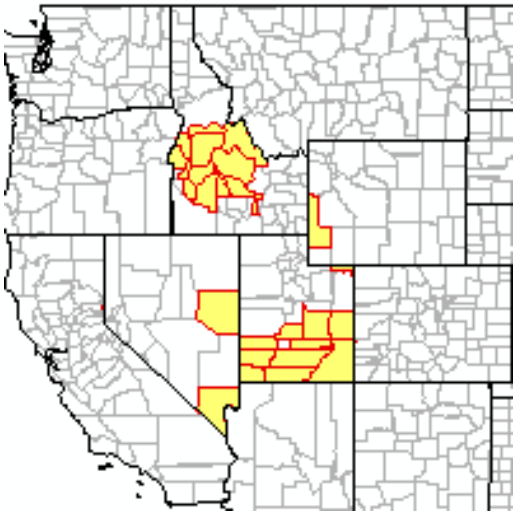


Forest Pest Event Report - Intermountain Region

Damage Agent:	**Western Pine Beetle** (*Dendroctonus brevicomis*)
Survey Year:	2013
Host(s):	Ponderosa Pine
Survey Method(s):	Aerial Survey - DMSM
Setting(s):	Rural Forest
Finding of No Signifcant Impact:	False
Acres Affected:	Unknown
Location / Affected Area:	Throughout Intermountain Region

In the Intermountain Region ponderosa pine mortality attributed to western pine beetle increased nearly four-fold from 2012 levels with building outbreaks in some areas. Most of the mortality was mapped in southern Idaho on the Boise National Forest and private land. Drought conditions and the wildfires of 2012 are likely responsible for this tree mortality. In central and southern Utah, ponderosa pine mortality attributed to western pine beetle increased slightly. Endemic levels of activity were reported in Nevada and western Wyoming.

Counties or Equivalents	Causing Damage (Yes/No)
CA - Sierra County	Yes
CO - Montrose County	Yes
ID - Ada County	Yes
ID - Adams County	Yes
ID - Blaine County	Yes
ID - Boise County	Yes
ID - Camas County	Yes
ID - Custer County	Yes
ID - Elmore County	Yes
ID - Gem County	Yes
ID - Idaho County	Yes
ID - Lemhi County	Yes
ID - Valley County	Yes
ID - Washington County	Yes
NV - Clark County	Yes
NV - White Pine County	Yes
UT - Beaver County	Yes
UT - Daggett County	Yes
UT - Emery County	Yes
UT - Garfield County	Yes
UT - Grand County	Yes
UT - Iron County	Yes
UT - Kane County	Yes
UT - San Juan County	Yes
UT - Sevier County	Yes
UT - Washington County	Yes
UT - Wayne County	Yes
WY - Lincoln County	Yes



Forest Pest Event Report - Intermountain Region

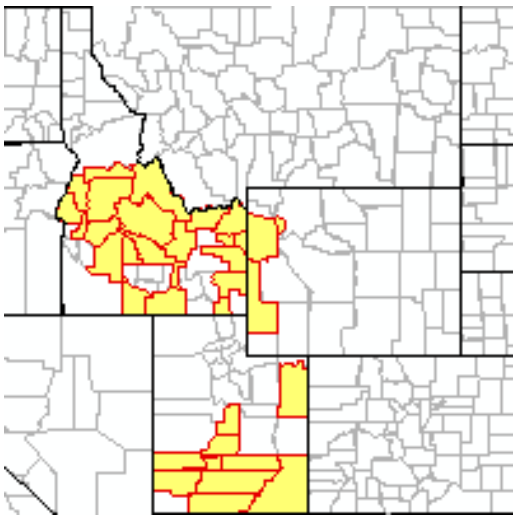
Damage Agent:	**Western Spruce Budworm** (*Choristoneura occidentalis*)
Survey Year:	2013
Host(s):	Douglas-Fir, Subalpine Fir
Survey Method(s):	Aerial Survey - DMSM
Setting(s):	Rural Forest
Finding of No Signifcant Impact:	False
Acres Affected:	Unknown
Location / Affected Area:	Idaho, Utah, and western Wyoming.

In the Intermountain Region, western spruce budworm-caused tree defoliation decreased in area by nearly 50 percent in 2013 compared to 2012. Nonetheless, south-central Idaho populations of this insect remained near outbreak levels for the ninth consecutive year. Aerial surveyors noted the signature was difficult to see but ground observations noted moth populations exceeded observed defoliation damage. Entomologists observed some late season refoliation of epicormic branches which is a last resort survival strategy often employed by over-stressed trees.

In southern Idaho, acres defoliated by budworm remained high on the Boise and Payette National Forests; even though a significant reduction in defoliation occurred on the Boise, Caribou-Targhee, and Salmon-Challis National Forests. Douglas-fir beetle outbreaks are also occurring in some of these heavily defoliated areas, often on the dry, south-facing sites. In Utah, acres affected by western spruce budworm defoliation increased three-fold from acreage mapped in 2012 with the largest increase occurring on the Fishlake National Forest. In western Wyoming, defoliation decreased to endemic levels. No western spruce budworm was mapped in Nevada.

Counties or Equivalents	Causing Damage (Yes/No)

ID - Adams County	Yes
ID - Blaine County	Yes
ID - Boise County	Yes
ID - Bonneville County	Yes
ID - Butte County	Yes
ID - Camas County	Yes
ID - Caribou County	Yes
ID - Cassia County	Yes
ID - Clark County	Yes
ID - Custer County	Yes
ID - Elmore County	Yes
ID - Franklin County	Yes
ID - Fremont County	Yes
ID - Gem County	Yes
ID - Idaho County	Yes
ID - Lemhi County	Yes
ID - Madison County	Yes
ID - Teton County	Yes
ID - Twin Falls County	Yes
ID - Valley County	Yes
ID - Washington County	Yes
UT - Beaver County	Yes
UT - Garfield County	Yes
UT - Iron County	Yes
UT - Kane County	Yes
UT - Piute County	Yes
UT - San Juan County	Yes
UT - Sanpete County	Yes
UT - Sevier County	Yes
UT - Uintah County	Yes
UT - Wayne County	Yes
WY - Lincoln County	Yes
WY - Park County	Yes
WY - Teton County	Yes



Forest Pest Event Report - Intermountain Region

Damage Agent:	**White Pine Blister Rust** (*Cronartium ribicola*)
Survey Year:	2013
Host(s):	Limber Pine, Western White Pine, Whitebark Pine
Survey Method(s):	General Observation
Setting(s):	Nursery, Rural Forest, Urban
Finding of No Signifcant Impact:	False
Acres Affected:	100,001 - 1,000,000
Location / Affected Area:	On five-needle pines throughout ID, WY, CA, and a few locations in NV.

Since its introduction into North America over a century ago, white pine blister rust (WPBR) has spread throughout the range of most western five-needle pines in the Intermountain West. Plots have been established in the Intermountain Region to survey and monitor white pine blister rust spread and intensity on limber, whitebark, Great Basin bristlecone and western white pine. In Utah, the pathogenic fungus has not yet been detected on pine hosts nor has it been detected on Great Basin bristlecone pine despite the high susceptibility of the host to the disease in greenhouse tests.

White pine blister rust is most noted for its impact on western white pine in the Pacific Northwest. In the Intermountain Region WPBR is most frequently found on whitebark and limber pines. Whitebark pine inhabits harsh, high mountain sites. Limber pine is more diverse, occupying various elevational niches in forest and range sites on predominantly calcareous soils in the Intermountain Region. Western white pine and sugar pine, some of which are infected, are found only on the Humboldt-Toiyabe National Forest along the California/Nevada border.

Counties or Equivalents	Causing Damage (Yes/No)
CA - Alpine County	Yes
CA - Placer County	Yes
ID - Adams County	Yes
ID - Blaine County	Yes
ID - Boise County	Yes
ID - Bonneville County	Yes
ID - Butte County	Yes
ID - Camas County	Yes
ID - Caribou County	Yes
ID - Clark County	Yes
ID - Custer County	Yes
ID - Elmore County	Yes
ID - Fremont County	Yes
ID - Idaho County	Yes
ID - Lemhi County	Yes
ID - Payette County	Yes
ID - Teton County	Yes
ID - Valley County	Yes
NV - Carson City	Yes
NV - Douglas County	Yes
NV - Elko County	Yes
NV - Lyon County	Yes
NV - Washoe County	Yes
WY - Fremont County	Yes
WY - Lincoln County	Yes
WY - Park County	Yes
WY - Sublette County	Yes
WY - Teton County	Yes